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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,563	12/21/2001	Eun-Hye Kim	P-0297	4948
34610	7590	11/29/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			SONI, DEEPAK H	
			ART UNIT	PAPER NUMBER
			2668	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/024,563	Applicant(s) KIM, EUN-HYE	
	Examiner Deepak Soni	Art Unit 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-20 and 23 is/are rejected.
- 7) ☒ Claim(s) 9 and 10, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 1,2,3 and 4 should be designated by a legend such as –PRIOR ART— because only that which is old is illustrated. See MPEP 608.02(g). A proposed drawing correction or corrected drawing is required in reply to the Office action to avoid abandonment of the application. The objection to the drawing will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim **1-8, 11-20 and 23**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art in view Hunt (U.S. 4,409,592) and in view Saito et al (U.S. 2001/0044295) and in further view of Feeney et al. (U.S. 6,735,635)

Regarding Claim **1 and 11**, "initializing a call connecting time for a terminal time according to a transmitted random number" Prior Art teaches initializing call connect time as shown in Figure 3 (element S420). Prior Art does not

teach call connect time according to transmitted random number. However Hunt teaches reschedule of transmission based on specified random number (Column 2, lines 29-31) "transmitting packet data from terminal to a Radio Port (RP) during call connecting time" Prior Art teaches as shown in Figure 1 (element 210,220 and 220A) and Figure 3 "increasing the random number with the RP; and transmitting the increased random number to a terminal" Saito teaches a method of using an encrypted random number, the authentication procedure, the base station controller randomly generates a number and sends it to the subscriber terminal, and both parties separately encrypt the number by using the common authentication key as spoken of on page 1, Paragraph 08. Prior Art, Saito and Hunt do not teach increasing the random number. However Feeney uses a dynamic adjustment parameter for the random delay interval that includes a fixed delay term, D , added to randomly determined delay increment, d as spoken of in Abstract and as shown in Figure 4 element 320. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to use the random number generated of Hunt to initialize the call connect time and increasing random number to increase the randomness of the random number, and transmit increased random number of Feeney to terminal of Saito. A motivation for doing so would be to improve the efficiency of such systems techniques for the sharing of the single communication channel among competing stations have been introduced. Among the techniques

introduced there are several called random access techniques which permit stations access to a channel whenever required, and resolve conflicts in channel usage by using random numbers as described in column 1, lines 19-26 of the Hunt reference.

Regarding Claim **2 and 15**, "synchronizing the RP and the terminal; transmitting controlling information from the RP to the terminal, after synchronization" Prior Art teaches as shown in Figure 4 (element S120 and S130), "checking with the terminal whether there is an error in the controlling information" Prior Art teaches as shown in Figure 4 (element S140 and S150), "checking with the terminal whether a terminal ID, which is carried in the controlling information, and an ID stored by the terminal correspond with each other" Prior Art teaches as shown in Figure 4 (element S160), "initializing the call connecting time according to the random number, carried in the transmitted controlling information, with the terminal." Prior Art teaches initializing a call connecting time as shown in Figure 3, and transmitting controlling information, with the terminal as shown in Figure 4 (element S130). Prior Art does not teach initializing a call connection time according to the random number. However Saito teaches the base station controller randomly generates a number and sends it to the subscriber terminal as spoken of on page 1, paragraph 08. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to use the random number generated of Saito to initialize the call connect time,

and sending the results as shown in Figure 3 and 4 of Prior Art. A motivation for doing so would be to provide a method where random numbers are used when a conflict occurs to specify a period of time each conflicting stations (terminals) must wait before an attempt is made to gain access to the channel as described in column 1, lines 26-28 of the Hunt reference.

Regarding Claim **3 and 13**, "the RP repeatedly transmits preamble data to the terminal for synchronization, if the terminal fails to synchronize with the RP."

Prior Art teaches as shown in Figure 4 (element S100, S110, S120).

Regarding Claim **4 and 16**, "the terminal throws away the controlling information and sets the call connecting time by itself, if the controlling information contains the error." Prior Art teaches as shown in Figure 4 (element S150 and S220) and Call connecting time as shown in Figure 3.

Regarding Claim **5 and 17**, "the terminal throws away the transmitted controlling information and sets the call connecting time by itself, if the terminal ID carried in the controlling information does not correspond with the ID stored by the terminal." Prior Art teaches as shown in Figure 4 (element S160 and S170).

Regarding Claim **7,19**, "the random number is increased by a predetermined method, and the increased random number establishes a new call connecting time" Hunt teaches reschedule of transmission based on specified random number (Column 2, lines 29-31) and Prior Art teaches connect time as shown in Figure 3. Prior Art or Hunt does not teach random number is increased.

However Feeney However Feeney uses a dynamic adjustment parameter for the random delay interval that includes a fixed delay term, D , added to randomly determined delay increment, d as spoken of in Abstract and as shown in Figure 4 element 320. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to use the random number generated of Hunt to establish the new call connect time as shown in Figure 3 of Prior Art and increasing random number to increase the randomness of the random number to establish a new call connecting time. A motivation for doing so would be to provide a method of conflict resolution, for avoiding multiple mobile stations from simultaneously accessing a channel.

Regarding Claim **6, 14 and 18**, "the random number is included in controlling information transmitted to the terminal." Saito teaches the base station controller randomly generates a number and sends it to the subscriber terminal as spoken of on page 1, paragraph 08. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given this reference to send the random number generated in the controlling information transmitted to the terminal as shown in Figure 4 (element S130) of Prior Art. A motivation for doing so would be to improve the efficiency of such systems techniques for the sharing of the single communication channel among competing stations. Among the techniques introduced there are several called random access techniques which permit stations access to a channel

whenever required, and resolve conflicts in channel usage by using random numbers as described in column 1, lines 19-26 of the Hunt reference.

Regarding Claim 12, "synchronizing the RP and the terminal; transmitting the controlling information from RP to the terminal" Prior Art teaches as shown in Figure 4 (element S120 and S130), "receiving the controlling information with the terminal" Prior Art teaches as shown in Figure 1 (element 100 and 110).

Regarding Claim 8, 20, "the random number is increased based on the expression: Increased random number = random number + 1." Prior Art, and references of Hunt and Saito et al. fails to teach random number is increased based on expression, However Feeney uses a dynamic adjustment parameter for the random delay interval that includes a fixed delay term, D, added to randomly determined delay increment as spoken of in Abstract and as shown in Figure 4 element 320. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given Feeney reference to use the random number generated and increasing random number by d to increase the randomness of the random number. A motivation for doing so would be to improve the efficiency of such systems techniques for the sharing of the single communication channel among competing stations have been introduced. Among the techniques introduced there are several called random access techniques which permit stations access to a channel whenever required, and resolve conflicts in channel usage by using random numbers as described in column 1, lines 19-26 of the Hunt reference.

Regarding Claim 23, "a Packet Data Management Unit (PDMU) that initializes a call connecting time for a wireless terminal time, according to a random number" Prior Art teaches initializing call connect time as shown in Figure 3(element S420). Prior Art does not teach call connect time according random number. However Hunt teaches reschedule of transmission based on specified random number (Column 2, lines 29-31) "a Radio Port (RP) that transmits the random number to the wireless terminal and receives packet data from the wireless terminal, during the call connecting time; the PDMU increases the random number, after the RP receives the packet data, and transmits the increased random number to the terminal to establish a next call connecting time." Saito teaches a subscriber terminal encodes a randomly generated number by using its unique identifier (ID) as encryption key, and sends the result to a relevant base station controller as spoken of on page 1, paragraph 07. Prior Art, Hunt and Saito does not teach increasing random number to establish a next call connecting time, However Feeney uses a dynamic adjustment parameter for the random delay interval that includes a fixed delay term, D , added to randomly determined delay increment, d as spoken of in Abstract and as shown in Figure 4 element 320. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to use the random number generated of Hunt to initialize the call connect time as shown in Figure 3 of Prior Art and increasing

the random number as spoken of in Feeney and to transmit random number to terminal of Saito to establish a next call connecting time. The purpose of increasing the random number is to increase the randomness of the random number. A motivation for doing so would be to improve the efficiency of such systems techniques for the sharing of the single communication channel among competing stations. Among the techniques introduced there are several called random access techniques which permit stations access to a channel whenever required, and resolve conflicts in channel usage by using random numbers as described in column 1, lines 19-26 of the Hunt reference.

Allowable Subject Matter

3. Claims **9 and 10 and 21 and 22**, are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claim **9**, the Prior Art, and references of Hunt and Saito et al. teaches method of claim **1**. The references of claim **1** fails to teach random number generator expression "the predetermined method for increasing the random number is based on the expression: $RN(I+1) = \text{MOD} ((RN(I)+1)/N)$ "

Regarding Claim **10**, the Prior Art, and references of Hunt and Saito et al. teaches method of claim **1**. The reference of claim **1** fails to teach random

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number generator expression "the value of N is based on the expression: $N=P1/P2$ where P1 is the predetermined period and P2 is call connecting period."

Regarding Claim **21**, the Prior Art, and references of Hunt and Saito et al. teaches method of claim **11**, The references of claim **11** fails to teach increasing the random number, expression "the predetermined method for increasing the random number is based on the expression: $RN(I+1)=MOD((RN(I)+1)/N)$ "

Regarding Claim **22**, the Prior Art, and references of Hunt and Saito et al. teaches method of claims **11**. The references of claim **11** fails to teach increasing the random number, expression "the value of N is based on the expression: $N=P1/P2$ where P1 is the predetermined period and P2 is call connecting period."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Soni whose telephone number is 571-272-2816. The examiner can normally be reached on 9:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Deepak Soni
Examiner
Art Unit 2668

DS



CHIEH M. FAN
SUPERVISORY PATENT EXAMINER